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TRUCK-CROP INSECT INVESTIGATIONS

J. E. Graf, Entomologist Acting in Charge

E. G. Smyth has left Guatemala for Mexico, where he will investigate the bean beetle situation in the area between Mexico City and Vera Cruz, with especial attention to the localities in the vicinity of Jalapa and Cordova. This region is at the edge of the Mexican plateau, and it is hoped that any parasites collected in this vicinity will be more easily adapted to the climatic conditions in the southeastern portion of the United States.

J. E. Dudley, Jr., has returned to his headquarters at Madison, Wis., after a trip through the pea-growing regions of Wisconsin, where a large series of experiments for the control of the pea aphid have been conducted during the present season.

J. R. Douglass, formerly connected with the Mexican bean beetle laboratory at Birmingham, Ala., has established headquarters at Estancia, N. Mex., for the study of the Mexican bean beetle under western conditions. He reports that the dry conditions which existed during the summer of 1922 and most of last winter are continuing to some extent, and the acreage of beans has been greatly reduced. Apparently the beetles are appearing from hibernation in much smaller numbers than usual -- a condition which has also been reported farther south in New Mexico by Dr. Robert Middlebrook. It appears that the dry weather of last summer, together with the cutting-off of their food supply, has influenced this unusual condition.

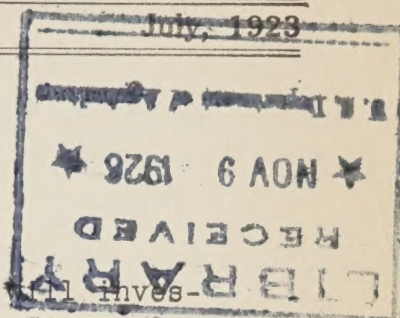
Guy Fletcher, temporary junior entomologist, stationed at Baton Rouge, La., has resigned to accept the principalship of a Smith-Hughes high school in Louisiana.

John P. Wemple has been temporarily appointed junior entomologist to assist C. E. Smith at Baton Rouge, La., in truck-crop insect investigations.

CEREAL AND FORAGE INSECT INVESTIGATIONS

W. R. Walton, Entomologist in Charge

W. R. Walton, Entomologist in Charge, accompanied by L. H. Worthley, made a tour of inspection of the New England area of corn borer infestation during July. The areas of infestation recently infested in Maine, New Hampshire, Rhode Island, and Massachusetts were visited, and conferences were



held with the regulatory officials. Corn was found to be small and in poor condition in most of the northern area, and the development of the corn borer considerably retarded.

L. H. Worthley and W. R. Walton attended the meeting of the Northeastern Entomologists at New Haven and Hartford on the 26th and 27th of July, and report having enjoyed a most profitable session.

D. J. Caffrey, in charge of the corn borer investigational work at Arlington, Mass., will soon visit the infested areas in eastern and western New York, and also those on the southern shore of Lake Erie, to inspect the work and confer with the men engaged at the western laboratories.

Prof. H. G. Crawford of the Canadian staff recently visited the Arlington, Mass., laboratory to confer with the investigational staff and to coordinate his work with that carried on under the direction of Mr. Caffrey throughout the infested areas in the United States.

It is announced that one of the parasites recently introduced from Europe as an enemy of the European corn borer, namely Exeristus roborator Fab., has been recovered from the field by the collection of corn borer larvae from which the parasite has been reared. It seems extremely probable, therefore, that this species has succeeded in establishing itself in this country. The recovery of this parasite is recorded from five or six different localities.

FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Entomologist in Charge

Fred E. Brooks, in charge of the French Creek, W. Va., station, sends the following statement:

"Considerable injury is occurring to the hickory and pecan trees of the Arrowfield nursery at Petersburg, Va., from Pseudibidion unicolor (Rand.). The larvae, just before maturing, sever the wood of stems and branches up to an inch or more in diameter and then pupate just above the point of injury. The bark at the girdle is left intact, but the wood above dies and soon breaks off. The injury is especially noticeable to young trees in the nursery row.

"Larvae and pupae of Balaninus are being collected here for systematic study by Richard T. Cotton, of the division of Stored-Product Insect Investigations. Specimens in these stages of the considerable number of closely allied species attacking acorns are being obtained and coordinated with the parent adults by confining mating pairs of beetles early in the season in cotton bags over oak branches bearing sound acorns.

"In several localities of central West Virginia the grape curculio, Craponius inaequalis Say, is occurring in great numbers and ruining the grape crop on unsprayed vines. At the present time, July 16, fully half of the fruits at this station are infested."

The Elberta crop of peaches has now practically been shipped to market from the Fort Valley - Marshallville district of Georgia. Practically no second-brood larvae of the plum curculio were in evidence, whereas in 1921-22, quantities of the second-generation eggs were deposited in June and full-grown second-brood larvae were leaving the fruit by July 1. This is an important seasonal variation in the life history of the plum curculio and of a very decided economic importance to the grower. It is surmised that this variation is due to temperature and other climatic factors.

Visitors to the Ft. Valley, Ga., laboratory during the past month to observe the work under way included two groups of peach growers from Mississippi and two groups from South Carolina. These growers were in charge of either the County Agent or the State Fruit Specialist.

On July 25 representatives of the Federal Horticultural Board, the Bureau of Entomology, and several nearby States visited the Japanese Beetle Laboratory at Riverton, N. J., to look over the work under way in the investigation and control of the insect. The party left the laboratory in automobiles at about 10 a.m. and visited a number of apple and peach orchards where the insect was abundant and has done much damage to the foliage and fruit. In the afternoon a conference was held at the laboratory, at which time C. H. Hadley and L. B. Smith explained the various phases of the work under way and reported upon progress being made in the investigational phases of the problem. Remarks were made by Prof. W. J. Schoene of Virginia and Prof. E. N. Cory of Maryland, on the damage caused by the insect and its probable future spread. Among those present at the round-up were the following:

Frank P. Willits, Secretary of the Pennsylvania Department of Agriculture.
John M. McKee, Deputy Secretary of Agriculture of Pennsylvania.
W. A. McCubin of the Pennsylvania Department of Agriculture.
H. B. Weiss of the New Jersey Department of Agriculture.
Prof. Wesley Webb of Delaware.
Prof. C. N. Cory and C. C. Hamilton of Maryland.
Prof. H. E. Hodgkiss of State College, Pa.
Dr. K. F. Kellerman and G. B. Sudworth of the Federal Horticultural Board.
Dr. A. L. Quaintance of the Bureau of Entomology.

C. H. Hadley has accepted the directorship of the Bureau of Plant Industry of the Pennsylvania State Department of Agriculture. He will, however, continue in general charge of the Japanese beetle project until the emergency period of the beetles for the summer has closed.

FOREST INSECT INVESTIGATIONS

T. E. Snyder, Entomologist Acting in Charge

W. D. Edmonston has finished control work for the season on the Kaibab Control Project in Arizona. During the period from May 1 to June 27, 1923, 6,252 trees were cut and treated from eight control camps in order to control

the Black Hills beetle. The average diameter of the trees cut was 22 inches and the average infested length 45 feet. The area covered was 6,340 acres and the cost per tree will not exceed \$1.50.

J. E. Patterson is at present in the Yosemite National Park to make examinations on the areas where control work was conducted prior to 1920. One object in particular of this trip will be to determine the spread, if any, of the lodgepole pine needle-miner to new areas and to study the distribution and habits of the Pandora moth in this region.

At the Wood Turners' Convention, held during the latter part of June at Chicago, Ill., Carl Stossel of the Carl Stossel & Sons Company, Front Royal, Va., spoke of the experimental work in cooperation with the Forest Insect Investigations of the Bureau of Entomology to solve their insect problems, and expressed his appreciation of the beneficial results. Mr. Stossel also prepared a brief outline of the work, which is to appear in the August number of the Wood Turning Magazine. The studies related to insects affecting crude and finished products and methods of control.

Dr. T. E. Snyder made a brief inspection of the spread of the southern pine beetle in southern Virginia, particularly in the vicinity of Richmond and Williamsburg, on July 23. At Williamsburg, Va., termites have done serious damage to Bruton Parish Church - probably the oldest Protestant church building existing in this country today. The woodwork of the building has been replaced several times during the history of the church, and the early records of the church contain statements that the building was in a serious state of decay. The termites had penetrated the lime mortar of the brick walls and had also come up through timbers of the flooring sunk in coarse grots. The damage to the church is being repaired.

BEE CULTURE INVESTIGATIONS

E. F. Phillips, Apiculturist in Charge

The annual meeting of beekeepers sponsored by the University of Wisconsin will this year be held at Madison, beginning August 13. On Friday, August 17, the library of beekeeping literature established in memory of Dr. Charles C. Miller will be formally dedicated, and on the following day a memorial tablet will be unveiled in the church at Marengo, Ill., in which he worshiped for many years. Following the unveiling of the tablet, an informal reception will be held at Doctor Miller's old home near Marengo. The entire week will to a large extent consist of a memorial to Doctor Miller. The Bee Culture Office is planning an extensive exhibit to be shown at this meeting, and in this work is receiving the cooperation of several other offices of the Department which have work touching beekeeping. Three hundred samples of honey from all parts of the United States will be exhibited, together with numerous charts, maps, and other material which will be interesting and instructive. The chemical composition of an average honey will be shown by bottles containing

the various constituents in so far as they can be shown quantitatively, and the other constituents of honey will be listed and described by charts. This chemical display has been prepared by the Carbohydrate Laboratory of the Bureau of Chemistry.

E. F. Phillips will attend the annual field meeting of the Eastern Massachusetts Beekeepers' Society to be held near Boston on August 25.

SOUTHERN FIELD-CRCP INSECT INVESTIGATIONS

J. L. Webb, Entomologist Acting in Charge

T. E. Holloway, in charge of the Sugar-Cane Insect Laboratory at New Orleans, La., was in Washington from July 11 to July 19, acting in charge of the Washington office during Mr. Webb's absence on a trip to the Ox Warble Laboratory at Middletown, N. Y. The trip to Middletown was made in connection with the temporary closing of the laboratory at that place owing to the resignation of R. W. Wells on July 24. Mr. Wells was in charge of the laboratory. He has resigned to engage in business.

F. C. Bishopp, in charge of the Dallas Laboratory, was in Washington on official business, late in June. On July 1 he left for Dallas but was obliged to leave the train at Columbus, Ohio, and upon the advice of a physician underwent an operation for appendicitis at that place. He has sufficiently recovered to return to Dallas and resume his duties.

R. W. Moreland has been reinstated on the boll weevil force and assigned to the Florence, S. C., station, effective July 2.

The following temporary employees have been appointed upon the boll weevil force and assigned to the Florence station: E. D. Bateman, L. L. Benton, J. A. Bolt, Wm. H. Craven, G. E. Hawkins, W. B. Hoffman, J. H. Hunter, A. H. Inman, M. L. Jones, J. G. Lewis, C. Ling, K. M. Mace, T. G. Martin, M. C. Martin, R. L. Martin, A. L. McCrary, W. D. McGowan, L. G. McGraw, J. L. Nichols, D. L. Outen, S. D. Reid, T. D. Rickenbaker, Wm. J. Roberts, T. S. Smith, J. N. Todd.

Dr. Carroll G. Bull, of the Department of Immunology of Johns Hopkins University, Baltimore, Md., has accepted a temporary appointment with this office, to do serological work in connection with the investigations of malarial mosquitoes.

S. E. Crumb and Joe Milan of the Tobacco Insect Laboratory at Clarksville, Tenn., spent several weeks in the vicinity of Lexington, Ky., conducting experiments on wireworms of tobacco.

F. S. Chamberlin of the Quincy, Fla., laboratory, made frequent trips to Tifton, Ga., during the month. The tobacco budworm is a source of much injury in the Tifton district.

STORED-PRODUCT INSECT INVESTIGATIONS

E. A. Back, Entomologist in Charge

John Cotton and Robert M. Fouts have been appointed as entomological laboratory assistants for temporary work at Washington.

Perez Simmons and George W. Ellington have been transferred from Washington to the Sligo, Md., laboratory, where they have undertaken a study of the biology of the Angoumois grain moth.

Dr. E. A. Back attended the meeting of the Northeastern Entomologists held in Connecticut, July 26-27.

LIBRARY

Mabel Colcord, Librarian

New Books

Alphandery, Edmond.

Le livre de l'abeille. Sa vie - ses mœurs; son élevage - ses produits ... Paris, S. Bornemann, 1922. 303 p., illus.

Ancona, Giacomo.

Asma epidemico, da "Pediculoides ventricosus." Epidemic asthma due to *Pediculoides ventricosus*. In Policlinico. Sez. Med. 1923, Feb. 1, v. 30, no. 2, p. 45-70. Review in Tropical Med. Bul., v. 20, no. 6, p. 473, June, 1923.

Brittain, W. H.

The European apple sucker. Truro, March, 1923. 69 p., 5 pl. (Nova Scotia Dept. Agr. Bul. 10.) Literature cited, p. 58.

Britton, W. E.

Guide to the insects of Connecticut. Part IV. The Hemiptera or sucking insects of Connecticut. Hartford, published by the State, 1923. 807 p., illus, 20 pl. (Conn. Geol. and Nat. Hist. Survey. Bul. 34) By various authors.

Debey, M. H.

Beiträge zur lebens- und entwickelungs-geschichte der Russelkäfer, aus der Familie der Attelabiden... 1. Abt. Der trichter-wickler *Rhynchites betulae* Gyll. Mit einer mathematischen Zugabe von E. Heis... Hrsg. von Naturhistorischen Verein der preussischen Rheinlande. Bonn, In commission bei Henry Cohen, 1846. xii, 53 p., 4 pl.

Efflatoun, H. C.

A monograph of Egyptian Diptera (Part I. Fam. Syrphidae). Cairo, Imprimerie de la Société orientale de publicité 1922. 123 p., 6 pl. (3-6 col.). (Société Ent. d'Egypt, Mémoires, t. 2, fasc. 1.)

Forel, Auguste.

Le monde social de fourmis du globe compare à celui de l'homme. v. 4.
Alliances et guerres paraviose, lestobiose, esclavagesime Genève, Librairie
Kundig, 1923. 172 p., illus., 4 pl.

Gough, L. H.

On the dispersion of the pink boll worm in Egypt. Cairo, Government Press,
1922. 20 p. (Egypt. Minister of Agriculture. Tech. and Sci. Service. Bul.
24.)

Klapalek, Fr.

Fam. Perlidae, subfam. Perlirae. Monographische Revision. Bruxelles, Hayez
Impr. des Academies, 1923. 193 p., illus. (Collections Zoologiques. Edm.
de Selys Longchamps. Catalogue syst. et descrip. fasc. 4 (Plecoptères II.
Fam. Perlidae).

Lancefield, D. E.

Linkage relations of the sex-linked characters in Drosophila obscura.
New York, 1922. In Genetics, v. 7, p. 335-384, July, 1922. Thesis
(Ph. D.), Columbia University.

Petty, F. W.

Arsenical spray experiments for the control of codling moth in pears at
Elsenburg. Pretoria, Government Printing and Stationery Office, 1922. 12 p.
(Union of South Africa Dept. Sci. Bul. 26.)

Pigorini, Luciano, and Teodoro, G.

Lezioni di biologia applicata alla sericoltura. Padova, Tipografia del
sanninareo, 1923. v. 2, 114 p., illus.

Roewer, G. F.

Die Werberknechte der Erde. Systematische Bearbeitung der bisher
bekannten Opiliones... Jena, Verlag von Gustav Fischer, 1923. 116 p.,
illus.

Stickney, F. S.

The head capsule of Coleoptera. Urbana, Ill., published by the University
of Illinois, Jan., 1923. 104 p., 26 pl. (Illinois Biol. Monog., v. 8,
no. 1.)

